

**WASHINGTON STATE DEPARTMENT OF HEALTH
OFFICE OF FOOD SAFETY AND SHELLFISH PROGRAMS**

ANNUAL GROWING AREA REVIEW

PREPARED BY: Donald J. Melvin, Environmental Specialist

AREA: South Skagit Bay

YEAR ENDING: December 31, 2005

CLASSIFICATION: Conditionally Approved, Prohibited

ACTIVITIES IN THE GROWING AREA IN 2005:

Samples were collected from each station in the growing area 11 times during the year using the systematic random sampling method. Construction of a new waste water treatment plant at Stanwood was completed in 2004 and the new plant is now operational. DOH completed an evaluation of the new Stanwood WWTP and a closure zone evaluation. The South Skagit Bay shellfish area is being evaluated for a possible reclassification.

ANALYTICAL RESULTS OF WATER SAMPLES:

Table #1 summarizes the results of the most recent 30 samples collected from the South Skagit Bay area. This summary shows that all stations pass the NSSP water quality standard. Stations #192, and #269 are threatened and stations #180, #184, and #190 are of concern due to elevated bacteria levels. Individual sample results for stations #192 and #269 are shown in Tables 2 and 3 respectively.

CHANGE IN ACTUAL POLLUTION SOURCES THAT IMPACT THE GROWING AREA:

We currently have no information indicating that the area has new sources of pollution.

CLASSIFICATION STATUS:

- ☐ Well within the classification standards
- ☐ Meets standards but some concerns
- ☒ Meets standards but threatened with a downgrade in classification
- ☐ Fails to meet classification standards

REMARKS AND RECOMMENDATIONS:

Skagit Bay and Skagit River are on the 303d list for fecal coliform.

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**MANAGEMENT PLAN EVALUATION – BRIEFLY DESCRIBE THE FOLLOWING
COMPONENTS:**

1. Have all parties involved complied with the conditions in the management plan Yes
2. Has reporting been adequate to manage the conditional area Yes
3. Does the area consistently meet approved area criteria when it is open for harvest Yes
4. Has a field inspection of critical pollution sources been conducted Yes

TABLE 1**SUMMARY OF MARINE WATER DATA (SRS)**Growing Area: **SOUTH SKAGIT BAY**Classification: **Prohibited,Conditionally Approved,Unclassified**From **05/21/2003** To **12/08/2005****FECAL COLIFORM ORGANISMS/100 ML**

Station Number	Classification	Number of Samples	Range	Geometric Mean	Est. 90th Percentile	Meets Std.
179	Prohibited	30	1.7 - 49.0	5.8	22.0	Yes
185	Prohibited	30	1.7 - 240.0	9.0	50.0	No
186	Prohibited	30	1.7 - 70.0	5.6	26.0	Yes
187	Prohibited	30	1.7 - 170.0	4.2	19.0	Yes
188	Prohibited	30	1.7 - 33.0	3.8	15.0	Yes
180	Conditionally Approved	30	1.7 - 110.0	5.2	25.0	Yes
181	Conditionally Approved	30	1.7 - 240.0	3.3	14.0	Yes
182	Conditionally Approved	30	1.7 - 49.0	3.1	9.0	Yes
183	Conditionally Approved	30	1.7 - 79.0	5.1	18.0	Yes
184	Conditionally Approved	30	1.7 - 79.0	6.1	22.0	Yes
189	Conditionally Approved	30	1.7 - 49.0	3.1	10.0	Yes
190	Conditionally Approved	30	1.7 - 79.0	4.3	22.0	Yes
191	Conditionally Approved	30	1.7 - 79.0	3.9	14.0	Yes
192	Conditionally Approved	30	1.7 - 49.0	9.2	33.0	Yes
269	Conditionally Approved	30	1.7 - 540.0	5.4	36.0	Yes
270	Conditionally Approved	30	1.7 - 33.0	3.7	12.0	Yes
312	Unclassified	18	1.7 - 220.0	9.8	54.0	*N/A

All tides information is presented

The standard for approved shellfish growing waters is fecal coliform geometric mean not greater than 14 organisms/100 ml and an estimate of the 90th percentile not greater than 43 organisms/100 ml. The above table shows bacteriological results in relation to program standards.

* N/A - SRS criteria require a minimum of 30 samples from each station. *

† All samples have been verified.

TABLE 2

**SUMMARY OF SHELLFISH GROWING AREAS
WATER QUALITY STUDY RESULTS**

Growing Area: **SOUTH SKAGIT BAY**

Sampling Station Number: **192**

Classification: **Conditionally Approved**

Sample Date	Sample Time	Tide	Fcoli/100ml	Temperature	Salinity
05/21/2003	08:48	Flood	4.5	13	22
06/19/2003	09:08	Ebb	6.8	13	6
07/17/2003	08:45	Ebb	4.5	16	14
08/19/2003	11:59	Flood	49	18	15
09/12/2003	10:51	Flood	1.7	14	23
11/03/2003	11:59	Flood	4.5	7	17
11/18/2003	11:56	Flood	17	7	4
12/18/2003	10:24	Flood	7.8	3	0
01/15/2004	10:18	Flood	7.8	8	3
02/12/2004	09:25	Ebb	2	3	4
03/17/2004	11:07	Flood	23	8	10
04/14/2004	11:40	Flood	7.8	12	19
05/12/2004	11:11	Flood	7.8	13	7
06/09/2004	10:05	Flood	33	14	1
07/22/2004	08:43	Flood	23	18	4
08/25/2004	13:59	Flood	33	16	12
09/22/2004	12:18	Flood	21	13	7
10/21/2004	11:28	Flood	7.8	11	18
12/09/2004	11:31	Flood	11	6	14
01/13/2005	10:14	Ebb	6.8	4	
02/09/2005	08:45	Ebb	33	3	
03/09/2005	13:51	Flood	4.5	11	18
04/07/2005	07:32	Ebb	6.8	10	
05/04/2005	14:31	Flood	2	15	
06/16/2005	13:41	Flood	13	17	4
07/27/2005	11:51	Ebb	49	19	18
08/25/2005	10:49	Flood	33	19	10
10/13/2005	13:24	Flood	2	13	25
11/09/2005	12:08	Ebb	2	11	17
12/08/2005	10:37	Flood	13	12	

Number of Samples: 30

Geometric Mean: 9.2

Range: 1.7 - 49

Estimated 90th Percentile: 33

† All samples have been verified.

TABLE 3

**SUMMARY OF SHELLFISH GROWING AREAS
WATER QUALITY STUDY RESULTS**

Growing Area: **SOUTH SKAGIT BAY**

Sampling Station Number: **269**

Classification: **Conditionally Approved**

Sample Date	Sample Time	Tide	Fcoli/100ml	Temperature	Salinity
05/21/2003	08:53	Flood	1.7	12	22
06/19/2003	09:15	Ebb	1.7	13	10
07/17/2003	08:53	Ebb	13	15	11
08/19/2003	12:09	Flood	1.7	18	21
09/12/2003	10:59	Flood	1.7	14	25
11/03/2003	12:07	Flood	4.5	7	16
11/18/2003	12:04	Flood	31	7	4
12/18/2003	10:31	Flood	23	3	0
01/15/2004	10:26	Flood	1.7	8	20
02/12/2004	09:28	Ebb	4.5	3	2
03/17/2004	10:49	Flood	1.7	8	19
04/14/2004	11:33	Flood	1.7	12	20
05/12/2004	11:07	Flood	2	13	18
06/09/2004	09:59	Flood	79	14	2
07/22/2004	08:49	Flood	540	18	5
08/25/2004	13:55	Flood	11	15	20
09/22/2004	12:27	Flood	4.5	13	14
10/21/2004	11:25	Flood	17	11	20
12/09/2004	11:27	Flood	2	7	16
01/13/2005	10:18	Ebb	6.8	5	
02/09/2005	08:52	Ebb	130	3	
03/09/2005	13:47	Flood	1.7	10	21
04/07/2005	07:35	Ebb	7.8	10	
05/04/2005	14:34	Flood	1.7	15	
06/16/2005	13:45	Flood	1.7	17	8
07/27/2005	11:55	Ebb	7.8	19	20
08/25/2005	10:54	Flood	4.5	18	21
10/13/2005	13:28	Flood	2	13	26
11/09/2005	12:11	Ebb	2	11	16
12/08/2005	10:41	Flood	1.8	13	

Number of Samples: 30

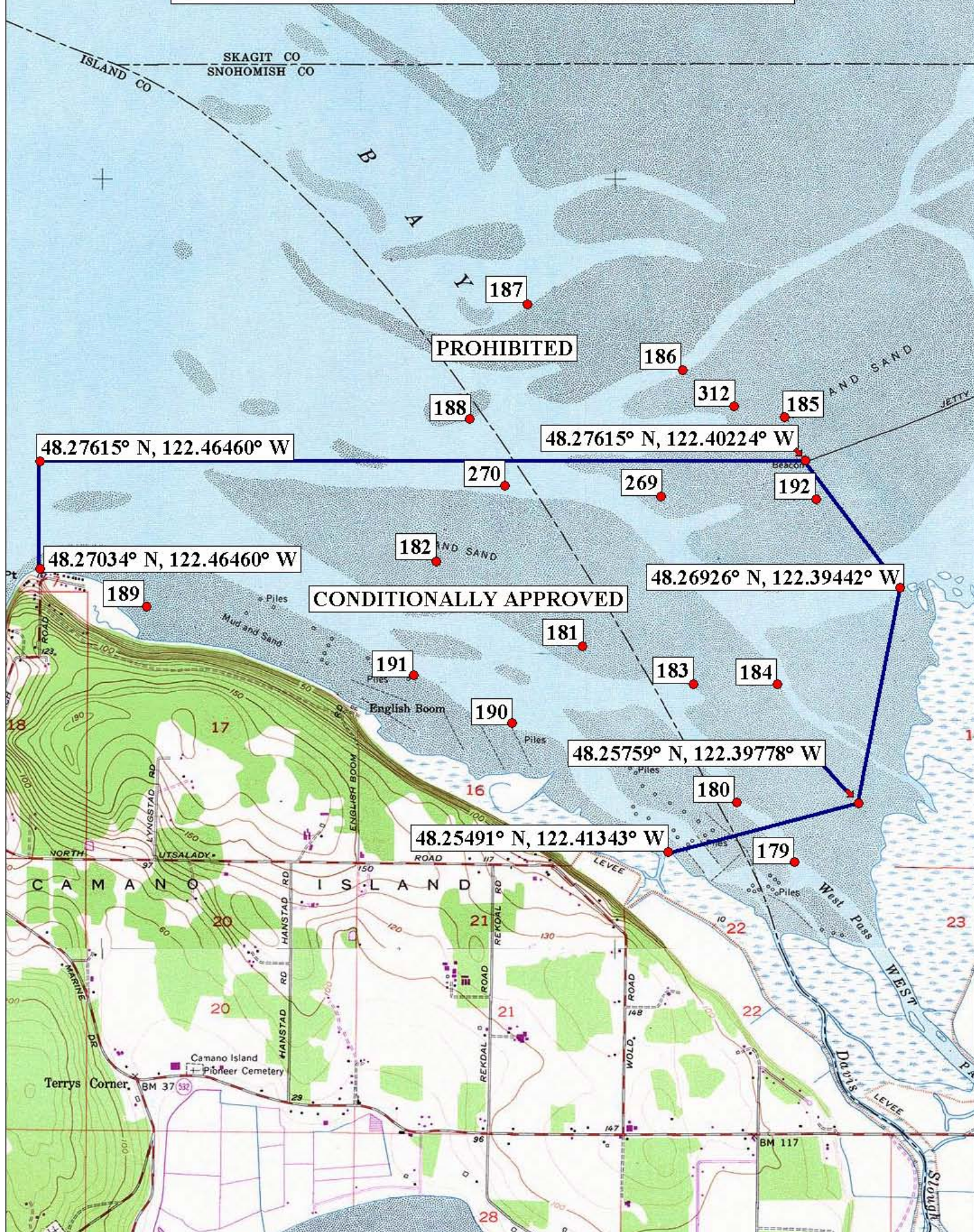
Geometric Mean: 5.4

Range: 1.7 - 540

Estimated 90th Percentile: 36

† All samples have been verified.

STATION LOCATIONS AND CLASSIFICATION BOUNDARIES



Most recent five-year trend in fecal coliform pollution.

